

C L A I M S

1. Process for the production of a position sensor comprising a housing, an electrical circuit arranged on a carrier being seated in its housing interior, comprising the steps:
  - the carrier is connected to an electrical connection element to form a carrier-connection element combination;
  - the carrier-connection element combination is introduced into the housing closed at a measuring end from a rear end located opposite the measuring end;
  - the space around the carrier-connection element combination in the interior of the housing is filled with a molding compound up to a specific level and
  - a cap is connected to the rear end of the housing, the connections of the connection element being guided through said cap.

2. Process as defined in claim 1, characterized in that the carrier-connection element combination is arranged in the housing at an angle to a longitudinal direction when molding compound is poured in.
3. Process as defined in claim 2, characterized in that the carrier-connection element combination is leaned against an inner wall of the housing when molding compound is poured in.
4. Process for the production of a position sensor with a housing, an electronic circuit arranged on a carrier being seated in its housing interior, comprising the steps:
  - the carrier is connected to an electrical connection element to form a carrier-connection element combination;
  - a molding compound is poured into the housing interior of the housing closed at a measuring end up to a specific level;
  - the carrier-connection element combination is pushed into the housing interior into the molding compound and
  - a cap is connected to the rear end of the housing, the connections of the connection element being guided through said cap.

5. Process as defined in claim 1, characterized in that the connection element is rigidly connected to the carrier.
6. Process as defined in claim 5, characterized in that a plurality of contact pins of the connection element are connected to the carrier.
7. Process as defined in claim 5, characterized in that the connection element is soldered to the carrier.
8. Process as defined in claim 1, characterized in that a cup-shaped insert is provided for closing the housing at the measuring end, said insert being pushed into the housing in the direction of the rear end from the measuring end.
9. Process as defined in claim 8, characterized in that the insert is held on the housing in a force-locking manner after its insertion.
10. Process as defined in claim 1, characterized in that the carrier-connection element combination is placed onto a closure element forming the closed measuring end.
11. Process as defined in claim 1, characterized in that the housing is oriented in its longitudinal direction essentially parallel to the direction of gravity during the introduction of the carrier-connection element combination and/or during the filling with the molding compound.

12. Process as defined in claim 1, characterized in that the amount of molding compound poured into the housing is controlled.
13. Process as defined in claim 1, characterized in that during the connection of the cap with the housing the carrier-connection element combination is aligned in longitudinal direction of the housing.
14. Process as defined in claim 1, characterized in that during the connection of the cap with the housing the carrier-connection element combination is aligned essentially collinear to the longitudinal axis of the housing.
15. Process as defined in claim 1, characterized in that the cap is pushed into the housing.
16. Process as defined in claim 15, characterized in that the cap is pushed into the housing as far as a stop defined on the cap.
17. Process as defined in claim 15, characterized in that the cap is pushed into the housing prior to hardening of the molding compound.
18. Process as defined in claim 4, characterized in that the cap is positioned on the carrier-connection element combination before the carrier-connection element combination is pushed into the housing interior.

19. Process as defined in claim 18, characterized in that the carrier-connection element combination is pushed into the housing with the cap positioned.
20. Process as defined in claim 1, characterized in that the cap is provided with a fixing means and the connection element with a fixing means adapted thereto.
21. Process as defined in claim 20, characterized in that during the connection of the cap with the housing the cap and the carrier-connection element combination are oriented relative to one another such that the respective fixing means can engage on one another.
22. Position sensor comprising a housing (12) for accommodating an electrical circuit (24) arranged on a carrier (22) in a housing interior (16) and an electrical connection element (46), characterized in that the carrier (22) and the connection element (46) are rigidly connected to one another to form a carrier-connection element combination (60) and a molding compound (88) is arranged in a space between the carrier-connection element combination and an inner wall (14) of the housing.
23. Position sensor as defined in claim 22, characterized in that the connection element (46) is a plug insert.

24. Position sensor as defined in claim 22, characterized in that the connection element (46) is soldered to the carrier (22).
25. Position sensor as defined in claim 22, characterized in that the housing (12) is manufactured from metal.
26. Position sensor as defined in claim 22, characterized in that the housing (12) is closed at a measuring end (30) with a cup-shaped insert (32).
27. Position sensor as defined in claim 26, characterized in that the insert (32) is manufactured from a plastic material.
28. Position sensor as defined in claim 26, characterized in that a sealing element (40) is formed on the insert (32) for sealing between the insert (32) and the inner wall (14) of the housing.
29. Position sensor as defined in claim 26, characterized in that the insert (32) is designed to be pushed into the housing (12).
30. Position sensor as defined in claim 29, characterized in that the insert is designed such that it is positionable on the housing (12) in a force-locking manner.
31. Position sensor as defined in claim 22, characterized in that the housing (12) is designed to be essentially rotationally symmetrical.

32. Position sensor as defined in claim 22, characterized in that the housing interior (16) has essentially the same cross section over the length of the housing (12).
33. Position sensor as defined in claim 22, characterized in that a cap (62) is seated at a rear end (54) of the position sensor (10) facing away from the measuring end (30).
34. Position sensor as defined in claim 33, characterized in that the cap (62) is of a plastic material.
35. Position sensor as defined in claim 33, characterized in that the cap (62) is at least partially transparent.
36. Position sensor as defined in claim 33, characterized in that the cap (62) is pushed into the housing (12).
37. Position sensor as defined in claim 36, characterized in that the cap (62) has a stop (84), the insertion into the housing (12) being limited by said stop.
38. Position sensor as defined in claim 33, characterized in that the cap has an opening (66) for the connection element (46).

39. Position sensor as defined in claim 38, characterized in that the opening is designed such that the carrier-connection element combination (60) is adapted to be fixed in the housing (12) transversely to the longitudinal direction (18) thereof by means of said opening.
40. Position sensor as defined in claim 38, characterized in that the opening (66) for the connection element (46) has a smaller diameter than the housing (12).
41. Position sensor as defined in claim 33, characterized in that the connection element (46) is provided with a fixing means (96) and the cap (62) with a fixing means (98) adapted thereto and the fixing means (96, 98) are adapted to engage in one another.
42. Position sensor as defined in claim 33, characterized in that the cap (62) is provided with an external thread (72).
43. Process as defined in claim 4, characterized in that the connection element is rigidly connected to the carrier.
44. Process as defined in claim 43, characterized in that a plurality of contact pins of the connection element are connected to the carrier.
45. Process as defined in claim 43, characterized in that the connection element is soldered to the carrier.

46. Process as defined in claim 4, characterized in that a cup-shaped insert is provided for closing the housing at the measuring end, said insert being pushed into the housing in the direction of the rear end from the measuring end.
47. Process as defined in claim 46, characterized in that the insert is held on the housing in a force-locking manner after its insertion.
48. Process as defined in claim 4, characterized in that the carrier-connection element combination is placed onto a closure element forming the closed measuring end.
49. Process as defined in claim 4, characterized in that the housing is oriented in its longitudinal direction essentially parallel to the direction of gravity during the introduction of the carrier-connection element combination and/or during the filling with the molding compound.
50. Process as defined in claim 4, characterized in that the amount of molding compound poured into the housing is controlled.
51. Process as defined in claim 4, characterized in that during the connection of the cap with the housing the carrier-connection element combination is aligned in longitudinal direction of the housing.

52. Process as defined in claim 4, characterized in that during the connection of the cap with the housing the carrier-connection element combination is aligned essentially collinear to the longitudinal axis of the housing.
53. Process as defined in claim 4, characterized in that the cap is pushed into the housing.
54. Process as defined in claim 53, characterized in that the cap is pushed into the housing as far as a stop defined on the cap.
55. Process as defined in claim 53, characterized in that the cap is pushed into the housing prior to hardening of the molding compound.
56. Process as defined in claim 4, characterized in that the cap is provided with a fixing means and the connection element with a fixing means adapted thereto.
57. Process as defined in claim 56, characterized in that during the connection of the cap with the housing the cap and the carrier-connection element combination are oriented relative to one another such that the respective fixing means can engage on one another.